

REMARKS

Claims 12-148 are rejected in the application. With this reply, Applicants have amended the claims, including canceling Claims 1-11, 16, 18, 21, 25, 28, 30, 35, 42, 45, 47, 54, 55, 62, 65, 67, 71, 72, 76, 81, 82, 86, and 89-103. Upon entry of the amendments, Claims 12-15, 17, 19, 20, 22-24, 26, 27, 29, 31-34, 36-41, 43, 44, 46, 48-53, 56-61, 63, 64, 66, 68-70, 73-75, 77-80, 83-85, 87, 88, and 104-148 remain pending.

Support for the amended claims is found in the specification as originally filed and as further discussed below. Applicants respectfully request entry of the amendments.

INTERVIEW WITH EXAMINER BERMAN

Applicants would like to thank Examiner Berman for the courtesies extended to their representatives, David Suter and Mark Frentrup, in a personal interview (herein, "the Interview") on September 8, 2005. As indicated in the Interview Summary signed by the Examiner, support for the amended claims was discussed along with the disclosure of the Sun Patent (U.S. Patent No. 5,414,049). Although specific agreement was not reached with respect to any individual claims, it was agreed that Applicants would amend the claims to more literally conform to the language in their specification. Applicants also agreed to submit a written explanation of how the amended claim terminology is substantively identical to the terminology of the original claims, and accordingly to the claim terminology of U.S. Patent No. 6,228,900, Shen et al., issued May 8, 2001 (herein "the Shen Patent"). It was agreed that other §112 issues in the Office Action would be addressed by deleting the word "about." Applicants understand that these amendments will resolve the § 112 rejections of record with respect to the amended claims. Applicants further understand that amendment of the claims in this manner would not affect their

substantive correspondence to subject matter of the claims of the Shen Patent for purposes of initiating an interference. Thus, these amendments should place the claims in a condition of allowability and declaration of interference with the Shen Patent.

OBJECTION TO THE REISSUE APPLICATION

The Application is objected to under 37 C.F.R. § 1.172(a) (Rule 172a). The objection was discussed at The Interview, but no resolution was reached. Applicants agreed to traverse the objection with this reply. Applicants respectfully submit that the papers establishing ownership interest and giving consent to the reissue application are in proper order; they therefore request that the objection be withdrawn. If, however, the objection is maintained, Applicants request clarification of the requirement, and will then provide re-executed papers for establishing inventorship and consent to the reissue.

First, the Office Action states there is no indication that the party signing the submission is an appropriate party to sign on behalf of the Assignee. But both papers are signed by the C.E.O. (Chief Executive Officer) of the Assignee, a position explicitly provided in M.P.E.P. § 324 as having apparent authority to do so.

The Office Action next states that the Assignee has not established its ownership interest in the patent for which reissue is being requested. It appears the Office is objecting to the fact that the person who is making the statement under 37.C.F.R. § 3.73(b) (Rule 73b) is also the person who is signing the consent to the reissue under Rule 172(a). This is said to be not acceptable.

Applicants cannot find any requirements in the Patent Statute, Patent Office Rules, or the M.P.E.P. prohibiting the same individual from signing both documents. Further, such a requirement would not appear to be logical, as it would require, in the present case, the C.E.O.

to sign one paper but then instruct a subordinate to sign the second. Applicants respectfully submit that the C.E.O. is an appropriate party to sign on behalf of the Assignee for all purposes, and that the rules do not forbid the C.E.O. to sign both the consent to the reissue and the statement under Rule 73(b).

Applicants further respectfully submit that the M.P.E.P. contemplates that at times a single individual can both give consent to the reissue Application and establish its own ownership interest. Attention is respectfully drawn to M.P.E.P. § 1410.01, which states “compliance with [Rule 73(b)] may be provided as part of the same paper in which consent by the Assignee is provided (emphasis added)”. Because the rules contemplate that a single paper (presumably with a single signature, absent any suggestion to the contrary) can provide both consent and proof of ownership, it is logical to infer that it is acceptable for a single individual to sign when the information is provided -- as here -- in two separate papers.

For the reasons discussed above, Applicants believe that the application papers are in order and respectfully request that the objection be withdrawn. The Office is invited to telephone the undersigned Applicants’ representative if that would be helpful in expediting compliance with this requirement.

COPY OF CLAIMS 12-148

The Office Action further states that a copy of Claims 12-148 submitted on August 19, 2003, should be included with the response to the Office Action, because new claims submitted in a reissue application must be underlined in their entirety (37 C.F.R. § 1.173(d)). To comply with this instruction, Applicants submit, as Appendix A to this Office Action, a copy of the claims submitted in August of 2003 showing all of the new claims underlined. Applicants

respectfully request that the attached underlined claims be made part of the file and that they be accepted as having completed the reissue application.

REJECTIONS UNDER 35 U.S.C. § 112

Claims 12-148 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. As discussed with the Examiner during the Interview, the Office Action states the position that various terms in the amended claims do not find exact *ipsis verbis* support in the specification. Amendment is required even though the amended claims would be substantively identical to the original claims for § 112 purposes. In response, Applicants have amended the claims with language of the specification. Accordingly, Applicants respectfully traverse the rejections as applied to the amended claims and request reconsideration.

In particular, Applicants have amended their claims to refer to “ultra high molecular weight polyethylene” (UHMWPE), wherever the term “polyethylene” previously occurred. Applicants respectfully submit the specification has complete support for the use of ultra high molecular weight polyethylene.

The Office Action further takes the position that the terms “orthopedic preform”, “medical implant”, “prosthesis”, “bearing surface” and “load bearing” are not supported by the specification. Applicants submit that these terms are fully supported by the specification. Nevertheless, to advance prosecution, Applicants have amended the claims to recite equivalent terms “molded article”, “artificial joint”, “acetabular cup”, “hip joint” and “knee joint” as suggested by the Examiner.

The Office Action further states that words such as “annealing” and “remelting” are not supported by the specification. Applicants submit that these terms are fully supported by the specification as understood by one of ordinary skill in the art. Nevertheless, to advance prosecution, Applicants have amended the claims, replacing “annealing” with equivalent phrases from the specification such as “heating to a temperature from 50°C below the melting point to the melting point” and “heating to a temperature of from around 100°C to 130°C.” Further, “remelting” has been amended to recite phrases such as “heating at a temperature from the melting point to 80°C above the melting point.” Such language in the amended claims is completely supported by the specification, which describes heating to temperatures in the recited ranges.

The Examiner also objected to the terminology of “heating the article isothermally after pressure is applied” in Claim 110. This language has been modified to refer to isothermal crystallization, in a claim which is also further focused on a specific embodiment of Applicants’ invention.

The Examiner has also objected to the use of the word “about” in many of the claims as not being supported by Applicants’ written description. In response, Applicants have deleted all occurrences of “about” in the claims. The term “about” in the claims reciting a temperature range of 100°C to 130°C has, however, been replaced with “around,” consistent with the specification at Column 4, Line 59. See, e.g., Claims 29 and 44.

In response to another objection by the Examiner, Applicants have amended claims that recite irradiation in a “solid state” to recite that the irradiation is carried out “below the melting point.” Applicants respectfully submit the newly recited limitation is supported by the specification.

Finally, claims containing phrases such as “removing a layer or surface of the polyethylene” and “fashioning” a bearing component have been amended to recite the “processing” and “cutting” terminology used in the specification.

For the convenience of the Examiner, as discussed during the Interview, Applicants are attaching a table as Appendix B, reciting the amended independent claims and the original claims. Claims specifically copied from the Shen Patent are noted. Claim terminology amended herein is bolded and the equivalence of those terms to the original claim language (and to terminology of the Shen Patent) is discussed along with non-limiting discussion of support of the language in Applicants’ specification. As evidenced, the amended claims are fully supported by the specification, and this terminology corresponds to that of the Shen Patent claims.

Applicants respectfully submit that the claims as amended are supported by their written specification and respectfully request that the rejections under § 112 be withdrawn.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND 103

The originally presented claims also stand rejected as anticipated or obvious in view of U.S. Patent No. 5,414,049, Sun et al., issued May 9, 1995 (herein “the Sun Patent”). As discussed in the Office Action, the Sun Patent discloses several treatment steps that are performed on UHMWPE in various forms, characterized chiefly by a sequence of irradiation and heat treatment steps carried out on a finished implant. Applicants note, as confirmed by the Examiner in the Interview, that these rejections apply to the copied claims of the Shen Patent. Applicants have amended their method claims and their product claims, to address the various §112 rejections in the Office Action. Applicants respectfully submit that claims as now amended

recite additional limitations. Applicants request reconsideration of the rejections in view of these changes.

INTERFERENCE WITH SHEN ET AL. '900

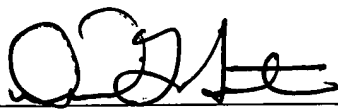
Applicants have presented claims to subject matter also claimed by the Shen Patent in order to provoke an interference. The Office Action stated that an interference can not be declared because the claims are not patentable to the Applicants, because the Applicants were alleged to "not have support within the disclosure as originally filed for the claim language employed . . . ". As discussed during the Interview, the amendments entered in this Amendment address all §112 rejections, while maintaining substantive correspondence within language used in the Shen Patent. Accordingly, Applicants respectfully request the declaration of an interference with Shen et al.

CONCLUSION

Further favorable action is earnestly solicited. The Examiner is invited to telephone the undersigned Applicants' representative if that would be helpful to resolving any issue.

Respectfully submitted,

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